Available online at www.sciencedirect.com

SCIENCE DIRECT

ELSEVIER

Geoderma 123 (2004) 377–378

GEODERMA

www.elsevier.com/locate/geoderma

Contents Volume 123, 2004

Review article

Soil carbon sequestration to mitigate climate change
R. Lal 1

Research papers

Mapping groundwater dynamics using multiple sources of exhaustive high resolution data
P.A. Finke, D.J. Brus, M.F.P. Bierkens, T. Hoogland, M. Knotters and F. de Vries 23

A physical interpretation of logarithmic TDR calibration equations of volcanic soils and their solid fraction permittivity based on Lichtenecker's mixing formulae
C.M. Regalado. 41

Assessment of soil property spatial variation in an Amazon pasture: basis for selecting an agronomic experimental area
C.E.P. Cerri, M. Bernoux, V. Chaplot, B. Volkoff, R.L. Victoria, J.M. Melillo, K. Paustian and C.C. Cerri 51

EDS/SEM study on microaggregates of Brazilian Latosols, in relation to P adsorption and clay fraction attributes
C.E.G.R. Schaefer, R.J. Gilkes and R.B.A. Fernandes 69

Submicroscopic measurements of tracer distribution related to surface features of soil aggregates
M.M. Nobles, L.P. Wilding and K.J. McInnes 83

Effects of a chaparral-to-grass conversion on soil physical and hydrologic properties after four decades
T.N. Williamson, R.C. Graham and P.J. Shouse 99

Modeling the complexity of different, recently deglaciated soil landscapes as a function of map scale
C.M. Hupy, R.J. Schaetzl, J.P. Messina, J.P. Hupy, P. Delamater, H. Enander, B.D. Hughey, R. Boehm, M.J. Mitroka and M.T. Fashoway 115

Relationships between soil properties and slope position in a lowland rain forest of southern Taiwan
C.-C. Tsui, Z.-S. Chen and C.-F. Hsieh 131

Influence of texture on organic matter distribution and quality and nitrogen and sulphur status in semiarid Pampean grassland soils of Argentina
J.A. Galantini, N. Senesi, G. Brunetti and R. Rosell 143

Heavy metal distribution in soil aggregates: a comparison of recent and archived aggregates from Russia
K. Ilg, W. Wilcke, G. Safronov, F. Lang, A. Fokin and M. Kaupenjohann 153

Copper fractionation and extractability in two contaminated variable charge soils
S. Yu, Z.L. He, C.Y. Huang, G.C. Chen and D.V. Calvert 163

Soil carbon stocks and turnovers in various vegetation types and arable lands along an elevation gradient in southern Ethiopia
M. Lemenih and F. Itanna. 177

Book reviews. 189

Research papers

Surface reactivity of Andisols on volcanic ash along the Sunda arc crossing Java Island, Indonesia
E. Van Ranst, S.R. Utami, J. Vanderdeelen and J. Shamshuddin 193

Impact of pre-existing sulphate on retention of imported chloride and nitrate in variable charge soil profiles
V. Rasiah, J.D. Armour, N.W. Menzies, D.H. Heiner and M.J. Donn. 205

Acid–base reactions between an acidic soil and plant residues
G.M. Sakala, D.L. Rowell and C.J. Pilbeam 219
Mechanisms of aggregation in a silty loam under different simulated management regimes
M.A. Taboada, O.A. Barbosa, M.B. Rodríguez and D.J. Cosentino 233
Hydroxy-interlayered minerals of forest soils in A-Li Mountain, Taiwan
C.W. Pai, M.K. Wang, H.B. King, C.Y. Chiu and J.-L. Hwong 245
Constructing a saturated hydraulic conductivity map of Spain using pedotransfer functions and spatial prediction
M. Ferrer Julià, T. Estrela Monreal, A. Sánchez del Corral Jiménez and E. García Meléndez 257
Halloysite characteristics and formation in the northern Golan Heights
A. Singer, M. Zarei, F.M. Lange and K. Stahr 279
The effects of palygorskite on chemical and physico-chemical properties of soils: a review
A. Neaman and A. Singer 297
Conversion of grassy cerrado into riparian forest and its impact on soil organic matter dynamics in an Oxisol from southeast Brazil
F.A. de Alcântara, P. Buurman, A.E. Furtini Neto, N. Curi and R. Roscoe 305
A quantitative evaluation system of soil productivity for intensive agriculture in China
B. Zhang, Y. Zhang, D. Chen, R.E. White and Y. Li 319
Organic carbon fractions in a yerba mate plantation on a subtropical Kandihumult of Argentina
G.A. Piccolo, J.A. Galantini and R.A. Rosell 333
Using the topography of the saprolite upper boundary to improve the spatial prediction of the soil hydromorphic index
V. Chaplot, C. Walter, P. Curmi, P. Lagacherie and D. King 343
Influence of compost on soil organic matter quality under tropical conditions
C. Rivero, T. Chirenje, L.Q. Ma and G. Martinez 355
Effect of texture on the performance of soil particle-size distribution models
S.I. Hwang 363

Book review 373

Contents Volume 123, 2004 377